

Marina Coast Water District

Recycled Water Rate Study

Board of Directors Presentation
January 19, 2022



Agenda

- 1. Introductions and Project Overview**
- 2. Rate Study Overview**
- 3. Recycled Water Costs**
- 4. Next Steps**

Project Team



Steve Gagnon
Project Director



Kevin Kostiuik
Project Manager



Joe Collins
Lead Analyst

Study Objectives

- Develop a **long-range financial plan** for the RUWAP Fund
- Develop recycled water **rates and charges**
- Document the study in a **Study Report**
- **Benchmark** recycled water system costs and rates against peers

Project Background

- District has a new system and new enterprise
- Consists of purchasing recycled water (RW) supply from M1W to offset / augment potable demand and reduce groundwater pumping
- Phase I: transmission and storage (Complete)
- Phase II: distribution pipelines and connection to pre-plumbed customers (In process)
- Recycled water service available in calendar year 2022
- Conversion of existing irrigators as well as current and future contractual users

Rate Study Overview



Steps in Conducting a Rate Study

STEP 1

Rate Setting Framework

- Financial goals and policies
- Pricing objectives

STEP 2

Financial Plan

- Evaluation of operating and capital costs
- Cash flow analysis for financial sufficiency

STEP 3

Rate Design

- Cost allocations
- Rate design: Rate calculations & customer impact analyses

STEP 4

Rate Adoption - Documentation

- Study Report
- Review by legal counsel

STEP 5

Rate Adoption – 218 Procedures

- Notice to District customers
- Public Hearing

Key California Legislation in Water Rates

- **Cost of Service Requirements**

- › Proposition 218 (Article XIII C and XIID of California Constitution)
- › Proposition 26

- **Water Conservation**

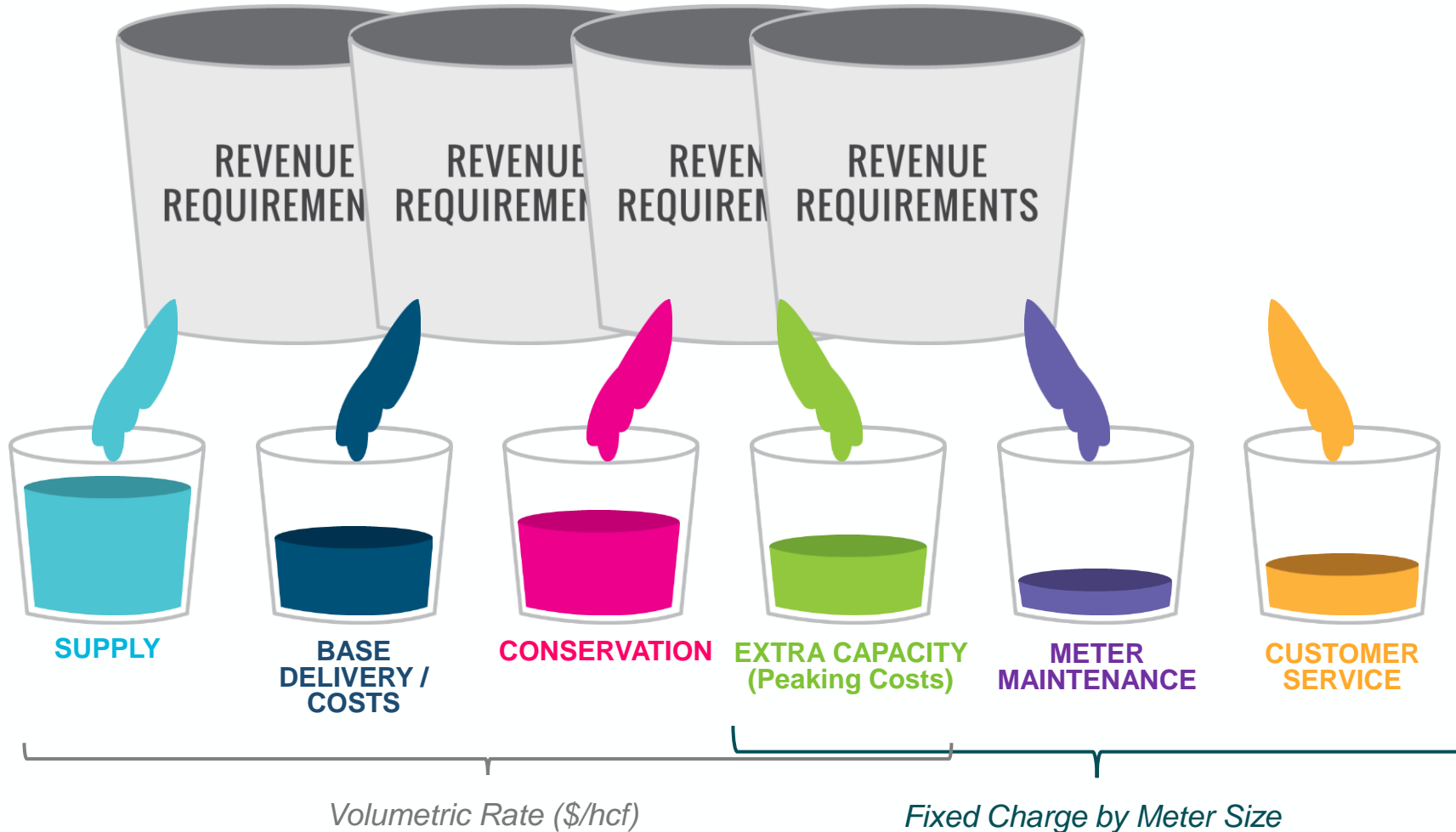
- › Article X of California Constitution

What is Cost of Service?

- Cost of service allows the matching of rates charged with the costs of serving each group
- Incurred costs are *functionalized* and then distributed to system cost components
- System cost components are recovered from either fixed or variable charges

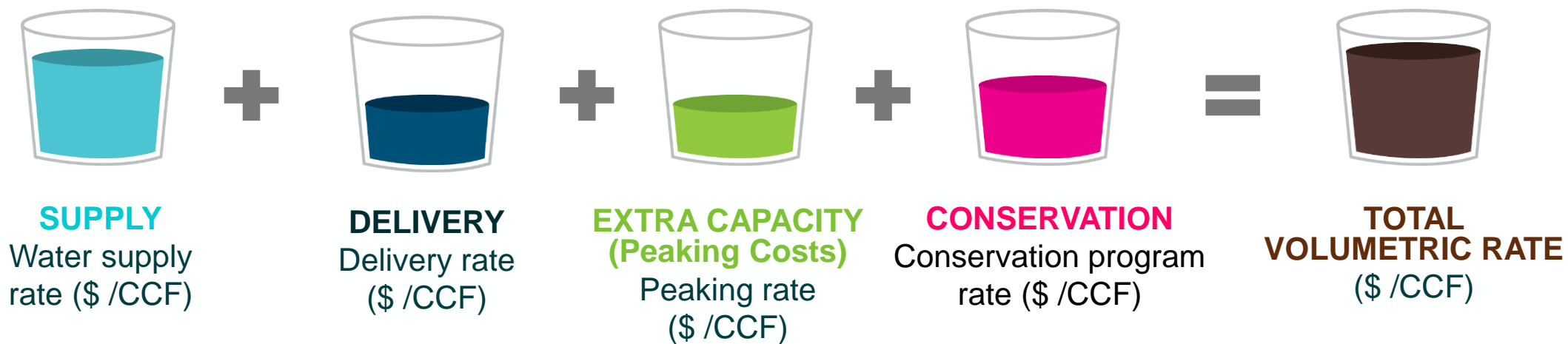
Cost of Service

Allocation to Cost Components



Rate Design

Commodity Rate Derivation



Rate Design Approach

- Commodity (volumetric) Rates
 - › Almost always a uniform structure
 - Recycled water is used for outdoor purposes only, with wide variation in volume of use
 - › Exception to uniform rates: water budgets
- Fixed Charges
 - › Raftelis is evaluating a separate, unique fixed charge for recycled water users
 - › Modeling in process

Recycled Water System Costs



Recycled Water System Costs

- Four components:
 - › Treatment: production of recycled water
 - › Transmission: conveyance from M1W to MCWD
 - › Distribution: MCWD's distribution system
 - › Overhead: fair share of MCWD indirect/administrative costs

Forecast of Water Treatment Costs

Treatment Costs	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
	Budget	Forecast	Forecast	Forecast	Forecast	Forecast
O&M						
<i>Power / Utilities</i>	-	542,923	570,069	598,572	628,501	659,926
<i>Chemicals</i>	-	409,434	429,906	451,401	473,971	497,670
<i>Labor</i>	-	281,186	295,246	310,008	325,508	341,784
<i>Land Leases</i>	-	-	-	-	-	-
<i>Laboratory Analysis / Techn</i>	-	256,643	269,476	282,949	297,097	311,952
<i>Indirect Costs</i>	-	90,207	94,717	99,453	104,426	109,647
Subtotal: O&M	\$ -	\$ 1,580,393	\$ 1,659,413	\$ 1,742,384	\$ 1,829,503	\$ 1,920,978
Annual Renewal Reserve		212,011	218,372	224,923	231,671	238,621
Debt Service						
Share of M1W SRF						
<i>Principal</i>	382,615	732,474	732,474	732,474	732,474	732,474
<i>Interest</i>						
Subtotal:	\$ 382,615	\$ 732,474	\$ 732,474	\$ 732,474	\$ 732,474	\$ 732,474
SFR Reserve Funding		732,474	-	-	-	-
Total: Treatment Costs	\$ 382,615	\$ 3,257,353	\$ 2,610,259	\$ 2,699,781	\$ 2,793,647	\$ 2,892,073

- O&M data from M1W
 - › 3% annual increases
- MCWD share of debt service
- Annual renewal reserve funding

Forecast of Transmission Costs

Transmission Costs	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
	Budget	Forecast	Forecast	Forecast	Forecast	Forecast
Debt Service						
MCWD 8184-110 SRF						
Principal			\$ 134,839	\$ 137,266	\$ 139,737	\$ 142,252
Interest			95,437	93,010	90,539	88,024
Subtotal:	\$ -	\$ -	\$ 230,276	\$ 230,276	\$ 230,276	\$ 230,276
MCWD 8184-110 Loan						
Principal			\$ 42,237	\$ 42,997	\$ 43,771	\$ 44,559
Interest			29,895	29,134	28,361	27,573
Subtotal:	\$ -	\$ -	\$ 72,132	\$ 72,132	\$ 72,132	\$ 72,132
2015 Bonds						
Principal	\$ 238,050	\$ 250,700	\$ 259,900	\$ 273,700	\$ 284,050	\$ 299,000
Interest	279,301	267,398	257,370	244,375	233,427	219,225
Subtotal:	\$ 517,351	\$ 518,098	\$ 517,270	\$ 518,075	\$ 517,477	\$ 518,225
Subtotal: Debt Service	\$ 517,351	\$ 518,098	\$ 819,678	\$ 820,483	\$ 819,885	\$ 820,633
Debt Service Reserve			\$ 302,408			
MCWD O&M		\$ 46,988	\$ 49,337	\$ 51,804	\$ 54,394	\$ 57,114
Payment from M1W						
Existing Pipeline Facilities	\$ -	\$ (33,413)	\$ (33,413)	\$ (33,413)	\$ (33,413)	\$ (33,413)
Share of O&M	-	(35,014)	(36,765)	(38,603)	(40,533)	(42,560)
Subtotal:	\$ -	\$ (68,427)	\$ (70,178)	\$ (72,016)	\$ (73,947)	\$ (75,973)
Total: Transmission Costs	\$ 517,351	\$ 496,658	\$ 1,101,245	\$ 800,270	\$ 800,332	\$ 801,773

- Debt service for new SRF/Loan and 2015 bonds
- Local O&M costs
- Payment from M1W to MCWD for $4173/5600 = \sim 75\%$ share of O&M
 - › Existing pipeline facilities

Forecast of Local Distribution Costs

Distribution Costs	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
	Budget	Forecast	Forecast	Forecast	Forecast	Forecast
Debt Service						
MCWD 8184-120 SRF						
<i>Principal</i>	\$ -	\$ -	\$ 153,265	\$ 147,874	\$ 150,535	\$ 153,245
<i>Interest</i>	-	-	94,805	100,197	97,536	94,826
Subtotal:	\$ -	\$ -	\$ 248,071	\$ 248,071	\$ 248,071	\$ 248,071
MCWD 8184-120 Loan						
<i>Principal</i>	\$ -	\$ -	\$ 51,397	\$ 52,322	\$ 53,264	\$ 54,223
<i>Interest</i>	-	-	36,378	35,453	34,511	33,553
Subtotal:	\$ -	\$ -	\$ 87,775	\$ 87,775	\$ 87,775	\$ 87,775
Subtotal: Debt Service	\$ -	\$ -	\$ 335,846	\$ 335,846	\$ 335,846	\$ 335,846
Debt Service Reserve	\$ -	\$ -	\$ 335,846	\$ -	\$ -	\$ -
MCWD O&M	\$ -	\$ 291,476	\$ 306,050	\$ 321,352	\$ 337,420	\$ 354,291
Total: Distribution Costs	\$ -	\$ 291,476	\$ 977,743	\$ 657,199	\$ 673,266	\$ 690,137

- Costs:
 - › Debt service
 - › MCWD O&M

Administration/Overhead Allocation

Administration Allocation	FY 2019			
	O&M	Percent	Adj. O&M	Adj. Percent
Utility				
Marina Water	\$ 2,888,624	24%	\$ 2,888,624	24%
Marina Sewer	684,419	6%	684,419	6%
Ord Water	6,914,178	57%	6,591,832	54%
Ord Sewer	1,710,054	14%	1,710,054	14%
Recycled	-	0%	322,346	3%
Total:	\$12,197,275	100.0%	\$12,197,275	100.0%

- Propose that the recycled utility be allocated 3% of administration, laboratory, engineering, and water resources department costs.
- Based on update of existing methodology using 2019 admin and operations budgets.

Expense Forecast Summary

Required Revenue	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
	Budget	Forecast	Forecast	Forecast	Forecast	Forecast
Treatment						
MCWD Share of M1W O&M	\$ -	\$ 1,580,393	\$ 1,659,413	\$ 1,742,384	\$ 1,829,503	\$ 1,920,978
MCWD Share of Renewal Replac	-	212,011	218,372	224,923	231,671	238,621
MCWD Share of M1W SRF	382,615	732,474	732,474	732,474	732,474	732,474
MCWD Share of SRF Reserve	-	732,474	-	-	-	-
Subtotal: Treatment	\$ 382,615	\$ 3,257,353	\$ 2,610,259	\$ 2,699,781	\$ 2,793,647	\$ 2,892,073
Transmission						
MCWD SRF	517,351	518,098	819,678	820,483	819,885	820,633
MCWD Share of MCWD O&M	-	11,973	12,572	13,201	13,861	14,554
M1W Share of Existing Pipeline	-	(33,413)	(33,413)	(33,413)	(33,413)	(33,413)
Debt Service Reserve	-	-	302,408	-	-	-
Subtotal: Transmission	\$ 517,351	\$ 496,658	\$ 1,101,245	\$ 800,270	\$ 800,332	\$ 801,773
Distribution						
MCWD O&M	\$ -	\$ 291,476	\$ 306,050	\$ 321,352	\$ 337,420	\$ 354,291
Debt Service	-	-	335,846	335,846	335,846	335,846
Debt Service Reserve	-	-	335,846	-	-	-
Subtotal: Distribution	\$ -	\$ 291,476	\$ 977,743	\$ 657,199	\$ 673,266	\$ 690,137
MCWD Administration Overhead	\$ -	\$ 195,656	\$ 205,439	\$ 215,711	\$ 226,497	\$ 237,822
Total: Expenses	\$ 899,966	\$ 4,241,143	\$ 4,894,685	\$ 4,372,961	\$ 4,493,743	\$ 4,621,804

Recycled Water Customers

- Existing retail customers
 - › Conversions beginning in FY 2022 and continuing through 2026 to a maximum of ~131 acre feet per year (AFY)
 - › Golf course – 457 AFY beginning in FY 2022
- University
 - › Additional 87 AFY in 2022 per 2018 Temporary Construction Permit, pays 2017 Ord Tier 1 water rate with inflationary adjustments
 - › Conversion of existing meters in 2025, plus
- Contractual customers - TBD
- MCWD Potable Utility
 - › Will have use for remainder of 1,427 AFY

Forecast of Recycled Water Demand

Units of Service Summary	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
	Budget	Forecast	Forecast	Forecast	Forecast	Forecast
Volume (Ccf)						
Retail and Golf Course	-	208,891	208,891	228,827	256,131	256,131
University	-	37,897	37,897	37,897	37,897	37,897
Contractual Customers	-	-	-	-	-	-
MCWD Utility Use	-	374,813	374,813	354,877	327,573	327,573
Total Purchased	-	621,601	621,601	621,601	621,601	621,601
Volume (AF)						
Retail and Golf Course	-	480	480	525	588	588
University	-	87	87	87	87	87
Contractual Customers	-	-	-	-	-	-
MCWD Utility Use	-	860	860	815	752	752
Total Purchased	-	1,427	1,427	1,427	1,427	1,427

Financial Projections and Multi-Year Rates

- Future year rate increases require additional discussion and consideration
 - › Primary options:
 - Adopt multi-year rates based on forecasted change (increases) in annual expenses
 - Adopt an annual adjustment based on CPI (pass-through)
 - Apply the same revenue adjustment as in Marina/Ord
- Raftelis cost projections do not fund any Recycled Water replacement reserve funds

Next Steps

- Proposed Recycled Water Rates
- Multi-year rate schedule
- Report development and initiation of 218 Procedures
- Public Hearing

Study Timeline

Task	Deliverable	Completion Date
Rate Setting Framework	N/A	Complete
Financial Plan	Excel Model	Modeling Complete
Rate Design	Excel Model	February 22, 2022
Rate Authorization/Documentation	Study Report	March 21, 2022
Rate Adoption	N/A	May 16, 2022



Thank you!

